

REMARKS

Claims 3-9 are all the claims pending in the application. Claims 1 and 2 have been canceled without prejudice or disclaimer. Claims 3-6 and 9 have been rewritten in independent form and, therefore, should be fully substantively considered, even at this stage of prosecution—i.e., after final Office Action. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Personal Interview

Applicants thank the Examiner for the courtesy extended to their personal representative during the interview conducted on September 1, 2004. The Examiner's Interview Summary record is believed to be sufficient and, therefore, no further comment is thought necessary.

Claim Rejections - 35 U.S.C. §103

- The Examiner rejected claims 1-7 under §103(a) as being unpatentable over US Patent 5,087,920 to Ueno et al. (hereinafter Ueno). Applicants respectfully traverse this rejection because Ueno fails to teach or suggest all of the elements as set forth in the claims.

First, Applicants arguments as set forth in the Amendment filed on February 20, 2004, pages 5-8 are still pertinent and, therefore, are incorporated herein by reference.

Second, Applicants emphasize that because Ueno teaches a resin composition that is different from the specific resin composition as set forth in the claims, Ueno's composition does not inherently include the flexural modulus and heat-resistant temperature as set forth. After all, each of the components of the resin has at least some affect on the properties of the resin. And because Ueno's composition is not exactly the same as that claimed, in order to establish *prima facie* obviousness it is incumbent upon the Examiner to show why the differences—i.e., addition of hydrocarbon polymer as a main ingredient—would not lead to a difference in properties. See MPEP §2112 (IV). Further, “[i]nherency, ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is

not sufficient.”¹ In the present case, that the presence of hydrocarbon polymer in Ueno’s composition may not affect the flexural modulus of the composition—as compared to a composition without the hydrocarbon polymer—amounts to a mere possibility and, therefore, is insufficient to render obvious the present claims directed to specific compositions.

Claim 3 sets forth a rolling bearing comprising a retainer rotatably holding rolling elements, wherein the retainer is made of a resin composition of polyamide 46 containing carbon fiber in an amount of from not smaller than 10% by weight to less than 40% by weight, wherein the resin composition has a flexural modulus of at least 3,500 MPa at 180°C and a heat-resistant temperature of at least 150°C.

In contrast to that set forth in claim 3, Ueno’s closest example discloses a composition of nylon 46 and glass fiber. See, for example, Comparative Example 2.

Claim 4 sets forth a rolling bearing comprising a retainer rotatably holding rolling elements, wherein the retainer is made of a resin composition of polyphenylene sulfide (PPS) resin containing carbon fiber in an amount of from not smaller than 20% by weight to less than 40% by weight, wherein the resin composition has a flexural modulus of at least 3,500 MPa at 180°C and a heat-resistant temperature of at least 150°C.

In contrast to that set forth in claim 4, Ueno’s closest example discloses a composition of PPS and glass fibers. See, for example, col. 8, lines 9-13. And the use of glass fibers, as opposed to carbon fibers, with PPS leads to very different properties in the composition. For example, as shown in Table 2 of the present specification, on page 19, a PPS resin with carbon fibers has a flexural modulus of 5,100 MPa at 180°C, whereas with glass fibers the flexural modulus drops to 1,800 MPa at 180°C. See Example 6 and Comparative Example 4 in Table 2.

¹ *Continental Can Co. USA Inc. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991) (citing *In re Oelrich*, 66 F.2d 578, 581 (fed. Cir. 1981) (quoting *Hansgirk v. Kemmer*, 102 F.2d 212, 214 (C.C.P.A. 1939))) (emphasis in original); see also *Scaltech Inc. v. Retec/Tetra L.L.C.*, 51 U.S.P.Q.2d 1055, 1059 (Fed. Cir. 1999); and *In re Robertson*, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999).

Claim 5 sets forth a rolling bearing comprising a retainer rotatably holding rolling elements, wherein the retainer is made of a resin composition of polyether ether ketone (PEEK) resin containing carbon fiber in an amount of from not smaller than 20% by weight to less than 40% by weight, wherein the resin composition has a flexural modulus of at least 3,500 MPa at 180°C and a heat-resistant temperature of at least 150°C.

Claim 6 sets forth a rolling bearing comprising a retainer rotatably holding rolling elements, wherein the retainer is made of a resin composition of polyether ether ketone (PEEK) resin containing glass fiber in an amount of from not smaller than 10% by weight to less than 40% by weight, wherein the resin composition has a flexural modulus of at least 3,500 MPa at 180°C and a heat-resistant temperature of at least 150°C.

In contrast to that set forth in each of claims 5 and 6, Ueno teaches that PEEK is “inferior in flexibility” as compared with the use of an aliphatic polyamide resin. See, for example, Ueno at col. 1, lines 31-38. Accordingly, Ueno teaches away from the use of PEEK at all. Yet it is improper to modify a reference where it teaches away from the modification.² Despite Ueno’s teaching away from PEEK, the Examiner asserts that although Ueno states “super engineering plastics are expensive to use, the limitations in the claims are still disclosed.” Such is simply not the case. Ueno does not disclose any particular composition that includes PEEK, let alone one that includes the recited content of glass or carbon fibers. Further, it is not only an issue of cost, but also of inferior flexibility, which directly affects the retainer’s ability to be fairly assembled to bearing. That is, if the retainer is not flexible enough, it will break when one attempts to insert the rolling elements therein. Moreover, Ueno’s disclosure of PEEK is as a comparison of what is unacceptable to that which is acceptable—polyamide resins. Specifically, Ueno discloses that aliphatic polyamide resin and hydrocarbon polymer are able to attain “characteristics ... superior to those made of super engineering plastic” [e.g. PEEK]. See Ueno at col. 2, lines 28-39. Accordingly, one of ordinary skill in the art—looking at the teachings of Ueno as a whole—would have been lead away from the use of PEEK, not toward it as suggested by the Examiner.

² *In re Grasselli*, 713 F.2d 731, 218 USPQ 769, 779 (Fed. Cir. 1983).

In fact, the Examiner's suggestion to use PEEK in Ueno's retainer amounts to nothing more than an impermissible attempt to reconstruct Applicants' invention by using the claims as a guide. This she cannot do. After all, "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious."³

For at least any of the above reasons, Ueno fails to render obvious Applicants' claims 3-6. Likewise, this reference fails to render obvious dependent claim 7.

- The Examiner rejected claims 8 and 9 under §103(a) as being unpatentable over Ueno in view of US Patent 5,807,920 to Aramaki et al. (hereinafter Aramaki). Applicants respectfully traverse this rejection because the Examiner's suggested combination would make Ueno's invention unsatisfactory for his intended purpose. Yet if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.⁴ Consequently, without suggestion or motivation to combine, *prima facie* obviousness is not established.

The Examiner asserts that it would have been obvious to modify Ueno so as to leave out the hydrocarbon polymer "if oil resistance was not a desired property of the retainer."⁵ Yet Ueno teaches that oil resistance is his invention.

Specifically, Ueno discloses that: it is "the object of the present invention to provide a retainer ... which can exhibit excellent oil resistance ..." col. 1, lines 40-46; in order to accomplish the object "the present inventors have studied to improve oil resistance of the retainer ..." col. 1, lines 52-55; "the retainer ... of the present invention ... is used in a lubricating oil"

³ *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ.2d 1780, 1784 (Fed. Cir. 1992)(citing *In re Gorman*, 933 F.2d 982, 987, 18 USPQ.2d 1885, 1888 (Fed. Cir. 1991)).

⁴ *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

⁵ Office Action at page 3, item 3, lines 8-10.

col. 2, lines 1-7; and “the retainer ... is **required** to have oil resistance and flexibility.” col. 6, lines 37-40 (emphasis added).

Further, Ueno teaches that it is the hydrocarbon polymer that provides the oil resistance: “by dispersing a hydrocarbon polymer ... oil resistance of the retainer ... is dramatically improved ... Thus, the present invention has been accomplished.” col. 1, lines 60-67. Moreover, the comparative examples not including the hydrocarbon as a component of the resin are judged to be no good. See Comparative Examples 2 and 3.

Thus, again, oil resistance is Ueno’s invention. By suggesting that oil resistance is not desirable or may be left out of Ueno’s composition amounts to a destruction of his invention, making it unsuitable for his intended purpose. Again, this the Examiner cannot do.

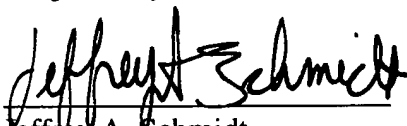
For at least any of the above reasons, Ueno and Aramaki fail to render obvious Applicants’ claims 8 and 9.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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